WHAT IS CLAIMED IS:

1. A print head having at least ink-pressurizing cells, heating elements, and ink-ejection nozzles, the print head comprising:

a substrate member which forms side surfaces and one end surface of the ink-pressurizing cells and which is provided with the heating elements;

a nozzle-formed member which forms the other end surface of the ink-pressurizing cells, and in which the ink-ejection nozzles, which individually correspond to the ink-pressurizing cells, are formed; and

a head frame which supports the nozzle-formed member.

2. A print head according to Claim 1, wherein the head frame has the same coefficient of linear expansion as the substrate member.

3. A print head according to Claim 1, wherein a coefficient of linear expansion of the nozzle-formed member is higher than a coefficient of linear expansion of the head frame.

4. A print head according to Claim 1, wherein a plurality of substrate units, each of which includes one or

more substrate members, are provided for individually ejecting inks of different colors, and wherein the substrate members included in the substrate units are attached to a single nozzle-formed member.

5. A print head according to Claim 1, wherein the print head is a line head.

6. A print head according to Claim 1, wherein the nozzle-formed member is formed of a material comprising nickel.

7. A manufacturing method for a print head, in which a substrate member, which forms side surfaces and one end surface of ink-pressurizing cells and which is provided with heating elements, is laminated at a high temperature to a nozzle-formed member, which forms the other end surface of the ink-pressurizing cells and in which the ink-ejection nozzles, which individually correspond to the ink-pressurizing cells, are formed, the manufacturing method for the print head comprising the steps of:

laminating the nozzle-formed member to a head frame, which has the same coefficient of linear expansion as the substrate member, at a temperature T_1, which is higher than room temperature; and

laminating the substrate member to the nozzle-formed member at a temperature T_2, which is higher than room temperature,

wherein the temperature T_1 is higher than the temperature T_2.

8. A manufacturing method for a print head according to Claim 5, wherein the temperature T_1 is higher than any temperatures at which other steps in the manufacturing process are performed.

9. A print head having at least ink-pressurizing cells, heating elements, and ink-ejection nozzles, the print head comprising:

a plurality of substrate members which form side surfaces and one end surface of the ink-pressurizing cells and which are provided with the heating elements; and

a nozzle-formed member which forms the other end surface of the ink-pressurizing cells, and in which the ink-ejection nozzles, which individually correspond to the ink-pressurizing cells, are formed,

wherein the substrate members are provided with the ink-pressurizing cells and the heating elements which individually correspond to the ink-pressurizing cells,

wherein a plurality of head chips are constructed by

laminating the substrate members on a common nozzle-formed member in such a manner that the ink-ejection nozzles individually correspond to the ink-pressurizing cells, and

wherein the head chips are arranged in a direction perpendicular to a feed direction of a print medium in a zigzag manner so that end portions of the head chips overlap one another in a longitudinal direction thereof, and in such a manner that ink inlets of the ink pressurizing cells of the head chips oppose one another, and a common ink passage is formed between the head chips which oppose one another.

10. A print head according to Claim 9, wherein the ink passage is formed by laminating the nozzle-formed member on an ink-passage plate having an opening, which is open at one side and is connected to an ink-supply tube, so as to cover the opening,

and wherein the head chips are disposed inside notches which are formed in the ink-passage plate at the same side as the side on which the nozzle-formed member is laminated.

11. A print head according to Claim 9, wherein the print head is a line head.

12. A print head according to Claim 9, wherein the nozzle-formed member is formed of a material comprising

nickel.

13. A print head according to Claim 9, wherein a plurality of substrate units, each of which includes one or more substrate members, are provided for individually ejecting inks of different colors, and wherein the substrate members included in the substrate units are attached to a single nozzle-formed member.

14. A printer comprising a print head according to one of Claims 1 to 9.

15. A print head comprising:

a substrate member which forms side surfaces and one end surface of ink-pressurizing cells and which is provided with heating elements; and

a nozzle-formed member which is laminated on the substrate member, which forms the other end surface of the ink-pressurizing cells, and in which ink-ejection nozzles, which individually correspond to the ink-pressurizing cells, are formed,

wherein the substrate member and the nozzle-formed member have approximately the same coefficient of linear expansion.

16. A print head according to Claim 15, wherein a base material of the substrate member is silicon, and a material of the nozzle-formed member is Invar alloy or a ferrum-nickel (Fe-Ni) alloy having a composition close to Invar alloy.

17. A print head, comprising:

a substrate member which forms side surfaces and one end surface of ink-pressurizing cells and which is provided with heating elements;

a nozzle-formed member which is laminated on the substrate member, which forms the other end surface of the ink-pressurizing cells, which has a higher coefficient of linear expansion than the substrate member, and in which ink-ejection nozzles, which individually correspond to the ink-pressurizing cells, are formed;

a frame member which has approximately the same coefficient of linear expansion as the substrate member and which is laminated on the nozzle-formed member; and

a warp-suppressing member which has approximately the same coefficient of linear expansion as the nozzle-formed member, and which is laminated on the frame member at the side opposite to the side at which the nozzle-formed member is laminated.

18. A manufacturing method for a print head which includes a substrate member, which forms side surfaces and one end surface of ink-pressurizing cells, and which is provided with heating elements, a nozzle-formed member, which forms the other end surface of the ink-pressurizing cells, which has a higher coefficient of linear expansion than the substrate member, and in which ink-ejection nozzles, which individually correspond to the ink-pressurizing cells, are formed, and a frame member, which supports the nozzle-formed member and which has approximately the same coefficient of linear expansion as the substrate member, the manufacturing method for the print head comprising the steps of:

forming a lamination surface of the frame member, on which the nozzle-formed member is to be laminated, in the shape of a curved surface in advance; and

laminating the nozzle-formed member on the lamination surface at a high temperature,

whereby the frame member deforms at an operating temperature due to a difference in coefficients of linear expansion between the frame member and the nozzle-formed member in such a manner that the lamination surface of the frame member becomes flat.

19. A manufacturing method for a print head according

to Claim 18, wherein the lamination surface of the frame member is formed as a curved surface, and the surface of the frame member at the opposite side of the lamination surface is formed as a flat surface.

20. A manufacturing method for a print head according to Claim 18, wherein the frame member has a uniform thickness over the entire region, and the lamination surface of the frame member is formed as a curved surface by warping the entire body of the frame member.

21. A print head comprising:

a substrate member which forms side surfaces and one end surface of ink-pressurizing cells and which is provided with heating elements; and

a nozzle-formed member which forms the other end surface of the ink-pressurizing cells, which has a higher coefficient of linear expansion than the substrate member, and in which ink-ejection nozzles, which individually correspond to the ink-pressurizing cells and from which ink is ejected by applying current to the heating elements and heating the heating elements, are formed,

wherein intervals between the heating elements, between the ink-pressurizing cells, and between the ink-ejection nozzles are increased from a central portion toward a

peripheral portion.

22. A control method for a print head which includes a substrate member, which forms side surfaces and one end surface of ink-pressurizing cells and which is provided with heating elements; and a nozzle-formed member, which forms the other end surface of the ink-pressurizing cells, which has a higher coefficient of linear expansion than the substrate member, and in which ink-ejection nozzles, which individually correspond to the ink-pressurizing cells and from which ink is ejected by applying current to the heating elements and heating the heating elements, are formed, the control method for the print head comprising the step of:

adjusting the time to apply current to the heating elements such that the heating elements positioned closer to a central portion receive current earlier than the heating elements positioned closer to a peripheral portion.

23. A control method for a print head according to Claim 22, further comprising the step of:

adjusting the time to apply current to the heating elements such that the heating elements positioned closer to the central portion receive current earlier than the heating elements positioned closer to the peripheral portion.

24. A print head having at least ink-pressurizing cells, heating elements, and ink-ejection nozzles, the print head comprising:

a plurality of substrate members which forms side surfaces and one end surface of the ink-pressurizing cells, and which are provided with the heating elements;

a nozzle-formed member which forms the other end surface of the ink-pressurizing cells, and in which the ink-ejection nozzles, which individually correspond to the ink-pressurizing cells, are formed;

a head frame which supports the nozzle-formed member; and

a plurality of head chips which are constructed by laminating the substrate members on a common nozzle-formed member in such a manner that the ink-ejection nozzles individually correspond to the ink-pressurizing cells,

wherein the head chips are arranged in a direction perpendicular to a feed direction of a print medium, and

wherein the head frame is provided with head-chip-receiving holes which individually receive the head chips.

25. A print head according to Claim 24, wherein the head chips are arranged in a zigzag manner so that end portions of the head chips overlap one another in a longitudinal direction thereof, and in such a manner that

ink inlets of the ink pressurizing cells of the head chips oppose one another.

26. A print head according to Claim 24, further comprising an ink passage plate which covers the head frame at the side opposite to the side at which the head chips are formed, and which is used for supplying each of the head chips with ink,

wherein the ink-passage plate is provided with chamber portions which are individually fitted in the head-chip-receiving holes, and the head chips are individually disposed inside notches which are individually formed in the chamber portions at the edge thereof.

27. A print head according to Claim 24, wherein the head frame and the substrate members have approximately the same coefficient of linear expansion.

28. A print head according to Claim 24, wherein a coefficient of linear expansion of the nozzle-formed member is higher than a coefficient of linear expansion of the head frame.

29. A print head according to Claim 24, wherein a plurality of substrate units, each of which includes one or

more substrate members, are provided for individually ejecting inks of different colors, and wherein the substrate members included in the substrate units are attached to a single nozzle-formed member.

30. A print head according to Claim 24, wherein the print head is a line head.

31. A print head according to Claim 24, wherein the nozzle-formed member is formed of a material comprising nickel.